RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/619,473_

Source: _____

Date Processed by STIC: _____

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RAW SEQUENCE LISTING   DATE: 02/16/2005
PATENT APPLICATION: US/10/619,473   TIME: 14:16:52

Input Set : N:\Crf3\RULE60\10619473.raw.txt
Output Set: N:\CRF4\02162005\J619473.raw

```
 1 <110> APPLICANT: Walker, Craig
 2        Shetty, Reshma
 3        Olivera, Baldomero M.
 4        Hooper, David
 5        Jacobsen, Richard
 6        Steele, Doug
 7        Jones, Robert M.
 8 <120> TITLE OF INVENTION: Tau-Conotoxin Peptides
 9 <130> FILE REFERENCE: Tau-Conopeptides
10 <140> CURRENT APPLICATION NUMBER: US/10/619,473
11 <141> CURRENT FILING DATE: 2003-07-16
12 <150> PRIOR APPLICATION NUMBER: US/09/497,491
13 <151> PRIOR FILING DATE: 2000-02-04
14 <150> PRIOR APPLICATION NUMBER: US 60/118,642
15 <151> PRIOR FILING DATE: 1999-02-04
16 <160> NUMBER OF SEQ ID NOS: 49
17 <170> SOFTWARE: PatentIn Ver. 2.0
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 23
21 <212> TYPE: PRT
22 <213> ORGANISM: Artificial Sequence
23 <220> FEATURE:
24 <223> OTHER INFORMATION: Description of Artificial Sequence:Generic
25        Sequence for Tau Conopeptides
26 <220> FEATURE:
27 <221> NAME/KEY: PEPTIDE
28 <222> LOCATION: (1)..(2)
29 <223> OTHER INFORMATION: Xaa at residue 1 is Asp, Glu or gamma-carboxy-Glu
30        (Gla); Xaa at residue 2 is des-Xaa, Gln, Asn, Glu,
31        Trp (D or L), neo-Trp, halo-Trp, any unnatural
32        aromatic amino acid.
33 <220> FEATURE:
34 <221> NAME/KEY: PEPTIDE
35 <222> LOCATION: (3)..(4)
36 <223> OTHER INFORMATION: Xaa at residue 3 is des-Xaa, Gly, Ala, Asn or Gln;
37        Xaa at residue 4 is des-Xaa4,Val, Leu (D or L),
38        Ile, Ala, Gly, Glu, Gla, Asp, Ser, Thr, Phe, Trp
39        (D or L), neo-Trp, halo-Trp (D or L) or any
40 <220> FEATURE:
41 <221> NAME/KEY: PEPTIDE
42 <222> LOCATION: (4)..(7)
43 <223> OTHER INFORMATION: unnatural aromatic amino acid; Xaa at residue 7 is
44        Pro, hydroxy-Pro, Gln, Asn, Glu, Gla, Ala, Gly,
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      45        Lys, Arg, Ile, Val, homoarginine, ornithine,
      46        N-methyl-Lys, N,N-dimethyl-Lys,
W--> 47        N,N,N-trimethyl-Lys or
      48 <220> FEATURE:
      49 <221> NAME/KEY: PEPTIDE
      50 <222> LOCATION: (7)..(8)
      51 <223> OTHER INFORMATION: any unnatural basic amino acid; Xaa at residue 8
      52        is Val, Phe, Thr, Ser, Glu, Gla, Asp, Asn, Gln,
      53        Ala, Gly, Ile, Leu (D or L), Met, Pro,
      54        hydroxy-Pro, Arg, homoarginine, ornithine, Lys,
W--> 55        N-methyl-Lys,
      56 <220> FEATURE:
      57 <221> NAME/KEY: PEPTIDE
      58 <222> LOCATION: (8)..(9)
      59 <223> OTHER INFORMATION: N,N,-dimethyl-Lys, N,N,N-trimethyl-Lys, any
      60        unnatural basic amino acid or any unnatural
      61        aromatic amino acid; Xaa at residue 9 is Val, Ile,
      62        Asn, Leu (D or L), Gln, Gly, Ala, Phe, Glu, Gla,
W--> 63        Arg,
      64 <220> FEATURE:
      65 <221> NAME/KEY: PEPTIDE
      66 <222> LOCATION: (9)..(10)
      67 <223> OTHER INFORMATION: ornithine, arginine, Lys, N-methy-Lys,
      68        N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
      69        unnatural basic amino acid or any unnatural
      70        aromatic amino acid; Xaa at residue 10 is Ile, Leu
W--> 71        (D or L), Met, Thr,
      72 <220> FEATURE:
      73 <221> NAME/KEY: PEPTIDE
      74 <222> LOCATION: (10)
      75 <223> OTHER INFORMATION: Ser, Pro, hydroxy-Pro, Gln, Asp, Glu, Gla, Asn,
      76        Arg, homoarginine, ornithine, Lys, N-methy-Lys,
      77        N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, Tyr,
      78        nor-Tyr, mono-halo-Tyr, di-halo-Tyr, O-sulpho-Tyr,
      79 <220> FEATURE:
      80 <221> NAME/KEY: PEPTIDE
      81 <222> LOCATION: (10)..(11)
      82 <223> OTHER INFORMATION: O-phosopho-Tyr, nitro-Tyr, any unnatural basic
      83        amino acid, any unnatural aromatic amino acid or
      84        any unnatural hydroxy containing amino acid; Xaa
      85        at residue 11 is des-Xaa, Ala, Gly, Asp, Glu, Gla,
      86 <220> FEATURE:
      87 <221> NAME/KEY: PEPTIDE
      88 <222> LOCATION: (11)
      89 <223> OTHER INFORMATION: Trp (D or L), neo-Trp, halo-Trp (D or L), Lys,
      90        N-methy-Lys, N,N-dimethyl-Lys,
      91        N,N,N-trimethyl-Lys, Arg, homoarginine, ornithine,
      92        Tyr, nor-Tyr, mono-halo-Tyr, di-halo-Tyr,
W--> 93        O-sulpho-Tyr, O-phospho-Tyr,
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 94 <220> FEATURE:
 95 <221> NAME/KEY: PEPTIDE
 96 <222> LOCATION: (11)..(14)
 97 <223> OTHER INFORMATION: nitro-Tyr or any unnatural basic amino acid; Xaa
 98       at residue 14 is des-Xaa, Ile, Leu (D or L), Val,
 99       Glu, Gla, Asp, Thr, Ser, Pro, hydroxy-Pro, Trp (D
100       or L), neo-Trp, halo-Trp (D or L), Phe, any
101 <220> FEATURE:
102 <221> NAME/KEY: PEPTIDE
103 <222> LOCATION: (14)..(15)
104 <223> OTHER INFORMATION: unnatural aromatic amino acid or any unnatural
105       hydroxy containing amino acid; Xaa at residue 15
106       is des-Xaa11, Gln, Asn, Leu (D or L), Ile, Val,
107       Ala, Gly, Trp (D or L), neo-Trp, halo-Trp (D or
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W--> 108   **L), Arg,**
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109 <220> FEATURE:
110 <221> NAME/KEY: PEPTIDE
111 <222> LOCATION: (15)..(16)
112 <223> OTHER INFORMATION: homoarginine, ornithine, Lys, N-methy-Lys,
113       N,N-dimethyl-Lys, N,N,N-trimethyl-Lys, any
114       unnatural basic amino acid or any unnatural
115       aromatic amino acid; Xaa at residue 16 is des-Xaa,
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W--> 116   **Ala, Gly, Phe,**
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117 <220> FEATURE:
118 <221> NAME/KEY: PEPTIDE
119 <222> LOCATION: (16)..(17)
120 <223> OTHER INFORMATION: Trp (D or L), neo-Trp, halo-Trp (D or L) or any
121       unnatural aromatic amino acid; Xaa at residue 17
122       is des-Xaa, Glu, Gla, Asp, Phe or any unnatural
123       aromatic amino acid.
124 <220> FEATURE:
125 <221> NAME/KEY: PEPTIDE
126 <222> LOCATION: (18)..(19)
127 <223> OTHER INFORMATION: Xaa at residue 18 is des-Xaa, Ile, Val or Leu (D
128       or L); Xaa at residue 19 is des-Xaa, Thr, Ser,
129       Arg, homoarginine, ornithine, Lys, N-methy-Lys,
130       N,N-dimethyl-Lys, N,N,N-trimethyl-Lys or any
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W--> 131   **unnatural**
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132 <220> FEATURE:
133 <221> NAME/KEY: PEPTIDE
134 <222> LOCATION: (19)..(22)
135 <223> OTHER INFORMATION: basic amino acid; Xaa at residue 20 is des-Xaa,
136       Glu, Gla or Asp; Xaa at residue 21 is des-Xaa, Asn
137       or Gln; Xaa at residue 22 is des-Xaa, Asp, Glu or
138       Gla.
139 <220> FEATURE:
140 <221> NAME/KEY: PEPTIDE
141 <222> LOCATION: (23)
142 <223> OTHER INFORMATION: Xaa at residue 23 is des-Xaa, Phe or any unnatural
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     143        aromatic amino acid.
     144 <400> SEQUENCE: 1
W--> 145        Xaa Xaa Xaa Xaa Cys Cys Xaa Xaa Xaa Xaa Xaa Cys Cys Xaa Xaa Xaa
     146         1               5                   10                  15
     147        Xaa Xaa Xaa Xaa Xaa Xaa Xaa
     148                       20
     150 <210> SEQ ID NO: 2
     151 <211> LENGTH: 11
     152 <212> TYPE: PRT
     153 <213> ORGANISM: Conus aulicus
     154 <220> FEATURE:
     155 <221> NAME/KEY: PEPTIDE
     156 <222> LOCATION: (4)..(8)
     157 <223> OTHER INFORMATION: Xaa at residue 4 is Pro or hydroxy-Pro; Xaa at
     158        residue 8 is Tyr, nor-Tyr, mono-halo-Tyr,
     159        di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
     160        nitro-Tyr.
     161 <220> FEATURE:
     162 <221> NAME/KEY: PEPTIDE
     163 <222> LOCATION: (11)
     164 <223> OTHER INFORMATION: Xaa at residue 11 is Trp (D or L), neo-Trp or
     165        halo-Trp (D or L).
     166 <400> SEQUENCE: 2
W--> 167        Phe Cys Cys Xaa Val Ile Arg Xaa Cys Cys Xaa
     168         1               5                   10
     170 <210> SEQ ID NO: 3
     171 <211> LENGTH: 11
     172 <212> TYPE: PRT
     173 <213> ORGANISM: Conus aulicus
     174 <220> FEATURE:
     175 <221> NAME/KEY: PEPTIDE
     176 <222> LOCATION: (4)..(8)
     177 <223> OTHER INFORMATION: Xaa at residue 4 is Pro or hydroxy-Pro; Xaa at
     178        residue 8 is Tyr, nor-Tyr, mono-halo-Tyr,
     179        di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
     180        nitro-Tyr.
     181 <220> FEATURE:
     182 <221> NAME/KEY: PEPTIDE
     183 <222> LOCATION: (11)
     184 <223> OTHER INFORMATION: Xaa at residue 11 is Trp (D or L), neo-Trp or
     185        halo-Trp (D or L).
     186 <400> SEQUENCE: 3
W--> 187        Phe Cys Cys Xaa Phe Ile Arg Xaa Cys Cys Xaa
     188         1               5                   10
     190 <210> SEQ ID NO: 4
     191 <211> LENGTH: 10
     192 <212> TYPE: PRT
     193 <213> ORGANISM: Conus textile
     194 <220> FEATURE:
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                    Input Set : N:\Crf3\RULE60\10619473.raw.txt
                    Output Set: N:\CRF4\02162005\J619473.raw
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       195 <221> NAME/KEY: PEPTIDE
       196 <222> LOCATION: (6)..(7)
       197 <223> OTHER INFORMATION: Xaa at residue 6 is Tyr, mono-halo-Tyr,
       198       di-halo-Tyr, O-sulpho-Tyr, O-phospho-Tyr or
       199       nitro-Tyr; Xaa at residue 7 is Trp (D or L),
       200       neo-Trp or halo-Trp (D or L).
       201 <400> SEQUENCE: 4
W--> 202       Cys Cys Gln Thr Phe Xaa Xaa Cys Cys Gln
       203        1           5               10
       205 <210> SEQ ID NO: 5
       206 <211> LENGTH: 13
       207 <212> TYPE: PRT
       208 <213> ORGANISM: Conus geographus
       209 <220> FEATURE:
       210 <221> NAME/KEY: PEPTIDE
       211 <222> LOCATION: (1)..(3)
       212 <223> OTHER INFORMATION: Xaa at residue 1 is Gln or pyro-Glu; Xaa at
       213       residue 3 is Trp (D or L), neo-Trp or halo-Trp (D
       214       or L); Xaa at residue 6 is Lys, N-methyl-Lys,
       215       N,N-dimethyl-Lys or N,N,N-trimethyl-Lys.
       216 <220> FEATURE:
       217 <221> NAME/KEY: PEPTIDE
       218 <222> LOCATION: (7)
       219 <223> OTHER INFORMATION: Xaa at residue 7 is Glu or gamma-carboxy-Glu.
       220 <400> SEQUENCE: 5
W--> 221       Xaa Gly Xaa Cys Cys Xaa Xaa Asn Ile Ala Cys Cys Ile
       222        1           5               10
       224 <210> SEQ ID NO: 6
       225 <211> LENGTH: 10
       226 <212> TYPE: PRT
       227 <213> ORGANISM: Conus quercinus
       228 <400> SEQUENCE: 6
       229       Gly Cys Cys Ala Arg Leu Thr Cys Cys Val
       230        1           5               10
       232 <210> SEQ ID NO: 7
       233 <211> LENGTH: 12
       234 <212> TYPE: PRT
       235 <213> ORGANISM: Conus purpurascens
       236 <220> FEATURE:
       237 <221> NAME/KEY: PEPTIDE
       238 <222> LOCATION: (5)..(6)
       239 <223> OTHER INFORMATION: Xaa at residue 5 is Pro or hydroxy-Pro; Xaa at
       240       residue 6 is Lys, N-methyl-Lys, N,N-dimethyly-Lys
       241       or N,N,N-trimethyl-Lys.
       242 <400> SEQUENCE: 7
W--> 243       Asn Gly Cys Cys Xaa Lys Gln Met Arg Cys Cys Thr
       244        1           5               10
       246 <210> SEQ ID NO: 8
       247 <211> LENGTH: 15
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 02/16/2005
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,7,8,9,10,11,14,15,16,17,18,19,20,21,22,23
Seq#:2; Xaa Pos. 4,8,11
Seq#:3; Xaa Pos. 4,8,11
Seq#:4; Xaa Pos. 6,7
Seq#:5; Xaa Pos. 1,3,6,7
Seq#:7; Xaa Pos. 5
Seq#:8; Xaa Pos. 2,8,10,14,15
Seq#:9; Xaa Pos. 1,3,6,7
Seq#:10; Xaa Pos. 1,4,7,13
Seq#:11; Xaa Pos. 4,7,13
Seq#:12; Xaa Pos. 14,16,17
Seq#:15; Xaa Pos. 3
Seq#:16; Xaa Pos. 3,5,6
Seq#:18; Xaa Pos. 6,8,11,12,13
Seq#:19; Xaa Pos. 5
Seq#:20; N Pos. 529,537
Seq#:46; N Pos. 573,580,620,631,645,659,678,691,697,705,715,719,723

VERIFICATION SUMMARY   DATE: 02/16/2005
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L:47 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:55 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:63 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:71 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:93 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:108 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:116 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:131 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:145 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:221 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:257 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:278 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:308 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
M:341 Repeated in SeqNo=12
L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:389 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:401 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:429 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:20
L:429 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:490
L:959 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ ID#:46
L:959 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:548
M:341 Repeated in SeqNo=46
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